Summary Report

Former Above-Ground Storage Tank (AST) Site 753

Marine Corps Air Station, El Toro, California

3 December 1999

Prepared by:

Lynn Marie Hornecker
Civil Engineer

Southwest Division, Naval Facilities Engineering Command
BRAC Program Office
1420 Kettner Boulevard, Suite 501
San Diego, CA 92101-2404

ADDENDUM TO SUMMARY REPORT FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

DATED 15 DECEMBER 2000

IS ENTERED IN THE DATABASE AND FILED AT ADMINISTRATIVE RECORD NO. **M60050.000737**

SOUTHWESTNAVFACENGCOM
Code 5BME.LMH
San Diego, CA 92101

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Section 1
Introduction

The purpose of this Summary Report is to present information pertaining to the Former Above-Ground Storage Tank (AST) Site 753 at the Marine Corps Air Station (MCAS), El Toro. The tank was identified as a 200-gallon pesticide storage tank in the Base Realignment and Closure Cleanup Plan (BCP). The tank was located at Building 753, adjacent to N Place near Building 369, as shown on Figure 1. The tank was transported to a waste disposal facility in November 1999.

The Marine Corps Air Station, El Toro, also known as the Station, comprises approximately 4,700 acres and is located in eastern Orange County approximately 45 miles southeast of Los Angeles, California. The Former AST Site 753 is located in the southwestern section of the Station at Building 753 which is located within the boundary of Installation Restoration Program (IRP) Site 24 – the Volatile Organic Compound (VOC) Source Area. Remediation of the vadose zone at IRP Site 24 is in progress as of November 1999.

The Station was closed on 2 July 1999 in accordance with the Base Realignment and Closure Act of 1993 (BRAC III). Former AST Site 753 and Building 753 are located within a parcel tentatively identified as a future cargo area according to *The Airport and Open Space Plan, Year 2020, Concept C* (County of Orange, August 1998).

Based upon the visual evidence from the inspections of the Former AST Site 753, the results of field sampling activities at nearby locations of concern, and the removal of the tank, we are recommending *no further action status* for this site and we propose to document *no further action status* in the next BRAC Cleanup Plan update.

Section 2
Field Inspections and Historical Records

2.1 Field Inspections

Former AST Site 753 Vicinity
The vicinity of Former AST Site 753 was inspected by Navy representatives in October 1999. AST 753 was located on a platform adjacent to Building 753, and secondary containment (a drip pan) was provided. No stains or discolored areas were observed on the platform where the tank was formerly operated, and no stains or discolored areas were observed on the pavement adjacent to the platform. The paved areas adjacent to the tank were in good condition, and no significant cracks in the pavement were observed. The tank was transported to a waste disposal facility on 24 November 1999, and a copy of the manifest is presented in the Appendix.

Photographs of the vicinity of Former AST Site 753 and a record of the visual inspection of the tank site are presented in the Appendix.

2.2 Environmental Program Records

Records of previously completed environmental restoration program investigations were acquired and reviewed. Selected nearby sites are shown on Figure 1. Former AST Site 753 is located within the investigation boundary of IRP Site 24 and in close proximity to IRP Site 11 and IRP Site 22. Extracts pertaining to selected IRP Sites are included in the Appendix.

Table 1. Sampling Activities or Investigations at or near Former AST Site 753.

Location of Concern Identification Number	Status	NFA or other Decision Document(s)	Comments
Former AST Site 753 Vicinity			
IRP Site 24 VOC Source Area Vadose Zone	Remediation in progress as of December 1999	Interim Record of Decision of 1997	Soil, soil gas, and ground water samples were collected at IRP Site 24 during the remedial investigation and during vadose zone remediation activities. Several sample locations are within 200 feet of Former AST Site 753.
IRP Site 11 Transformer Storage Area	Preparing for remediation	Record of Decision of 1999	Soil samples were collected during the remedial investigation. IRP Site 11 is located less than 100 feet northwest of Former AST Site 753.
IRP Site 22 Tactical Air Fuel Dispensing System	NFA	No Action Record of Decision of 1997	Soil, soil gas, and ground water samples were collected during the remedial investigation. IRP Site 22 is located less than 100 feet northeast of Former AST Site 753.
APHO 7 (wet soil or stains)	NFA	California Department of Toxic Substances Control letter dated 20 August 1999	Investigation included a review of historical records and previously collected field data from nearby IRP or RFA sites. APHO 7 is located within 100 feet of Former AST Site 753.

BRAC Cleanup Plan (BCP) Information
The BCP (Tables 3-1a, 3-1b, and 3-8) describe AST 753 and extracts from the BCP are presented in the Appendix.

Final Environmental Baseline Survey (EBS) Information
The EBS identifies a 200-gallon pesticide storage tank at Building 753, and extracts from the EBS are presented in the Appendix.

Storm Water Pollution Prevention Plan
The Station's Storm Water Pollution Prevention Plan (SWPPP) was reviewed and extracts from the SWPPP for the vicinity of Former AST Site 753 are presented in the Appendix of this report.

The SWPPP indicates that Building 753 personnel have been trained in spill cleanup procedures, and a spill cleanup kit was present during the SWPPP inspection.

Surface water from the vicinity of Former AST Site 753 eventually discharges to Bee Canyon Wash which is located northwest of the site. Bee Canyon Wash and other surface drainage channels were investigated during the Remedial Investigation of Installation Restoration Program Site 25 – the Major Drainages. A Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision identifying no action for IRP Site 25 was signed in 1997.

Surface water quality in Bee Canyon Wash is monitored under the Station's National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water. The permit was issued by the California Regional Water Quality Control Board, Santa Ana Region.

2.3 Historical Property Records

Property records including the Station's plant account data base were acquired and reviewed, and information pertaining to structures located near the Former AST Site 753 is summarized in Table 2.

Table 2. MCAS El Toro Property Records.

Building Identification Number	Approximate year of acquisition or construction	Type of Use	Comments
Former AST Site 753 Vicinity			
Building 753	1984	Pest Control Facility	Improved in 1990
Building 369	1954	SERVMART - Warehouse	

2.4 Ground Water Conditions

Ground water conditions have been investigated in the vicinity of Former AST Site 753 during the Remedial Investigations of IRP Site 24 – the VOC Source Area- and IRP Site 22 – the Tactical Air Fuel Dispensing System. The nearest wells, 24NEW5 and 22-DBMW47, are located northeast of the site. Ground water is located approximately 120 feet below ground surface based upon measurements from these wells, and the wells are located within the trichloroethene (TCE) ground water plume. Pesticides were not detected at or above laboratory reporting limits in water samples collected from Well 22_DBMW47. The nearest downgradient well, 09_DGMW75, is located several hundred feet northwest of Former AST Site 753. Pesticides were not detected at or above laboratory reporting limits in water samples collected during from this well. Selected ground water information is presented in the Appendix, and a conceptual site model is shown on Figure 2.

Section 3
Findings and Recommendations

The following findings are based upon information collected during the record search activities and from observations during the visual inspection of the Former AST Site 753 vicinity:

- A 200-gallon above-ground storage tank was used at the Pest Control Facility at Building 753 until approximately mid-1999.
- The ground water beneath Former AST Site 753 has been impacted by the release of volatile organic compounds from IRP Site 24, and ground water remediation will be managed under the Installation Restoration Program. Pesticides were not detected at or above laboratory reporting limits in water samples collected from nearby wells.
- The vicinity of the Former AST Site 753 was visually inspected by the Navy in October 1999, and no evidence of above-ground tanks or stained or discolored areas of pavement was observed. Additionally, the pavement appeared to be in good condition and no significant cracks in the pavement were observed at the time of the recent inspection.

Based upon the results of the evaluation of historical records, the results of the visual inspection, and the absence of evidence of releases of hazardous materials at the vicinity of Former AST Site 753, it is recommended that *no further action status* be designated for Former AST Site 753 and that *no further action status* be documented in the next BCP Update.

Section 4
References and/or Sources of Information

Bechtel National, Incorporated. 1995. Final Work Plan, Phase II Remedial Investigation/Feasibility Study, MCAS El Toro, California. July. [Navy Contract N68711-92-D-4670, Contract Task Order 59]

California Regional Water Quality Control Board, Santa Ana Region. 1998. Statement of Basis, Renewal of Waste Discharge Requirements for Marine Corps Air Station, El Toro, Order Number 98-42 (NPDES Number CAS 618006). March.

CDM Federal Programs Corporation. 1998. Final Groundwater Monitoring Report, October 1997 Sampling Round, Groundwater Monitoring Program for Marine Corps Air Station, El Toro. [Navy Contract N68711-96-D-2029, Delivery Order 5]

County of Orange. 1998. The Airport and Open Space Plan, Year 2020, Concept C. August. [prepared by the MCAS El Toro Local Redevelopment Authority]

Integrated Environmental Management (IEM). 1997. Storm Water Pollution Prevention Plan (SWPPP) for Marine Corps Air Station, El Toro, El Toro, California. July. [Contract No. N68711-96-D-2059, Delivery Order Number 0002] {*Annotation: The IEM planning document included the acquisition and review of historical and current plans of facilities and utilities. Extracts from the IEM report are presented in the Appendix.*}

Jacobs Engineering Group (JEG). 1993. Installation Restoration Program, Final Resource Conservation and Recovery Act Facility Assessment Report for Marine Corps Air Station, El Toro, California. [Navy Contract N68711-89-D-9296, Contract Task Order 193]

Jacobs Engineering Group (JEG). 1995. Marine Corps Air Station, El Toro, El Toro, California, Final Environmental Baseline Survey Report. April. [Navy Contract N68711-89-D-9296, Contract Task Order 284]

OHM Remediation Services Corporation. 1999. Technical Information Package on Above-ground Storage Tank 753. [Navy Contract N68711-93-D-1459]

Southwest Division, Naval Facilities Engineering Command. 1999. Summary Report, Aerial Photograph Anomaly APHO 7, Marine Corps Air Station, El Toro, California.

Southwest Division, Naval Facilities Engineering Command. 1999. Technical Memorandum, Aerial Photograph Anomalies, Marine Corps Air Station, El Toro, California. April.

United States Marine Corps Air Station, El Toro. 1999. Base Realignment and Closure (BRAC) Cleanup Plan.

U.S. Marine Corps Air Station, El Toro. 1997. Draft Final Record of Decision, Operable Units 2A and 3A, No Action Sites, Marine Corps Air Station, El Toro, California. September.

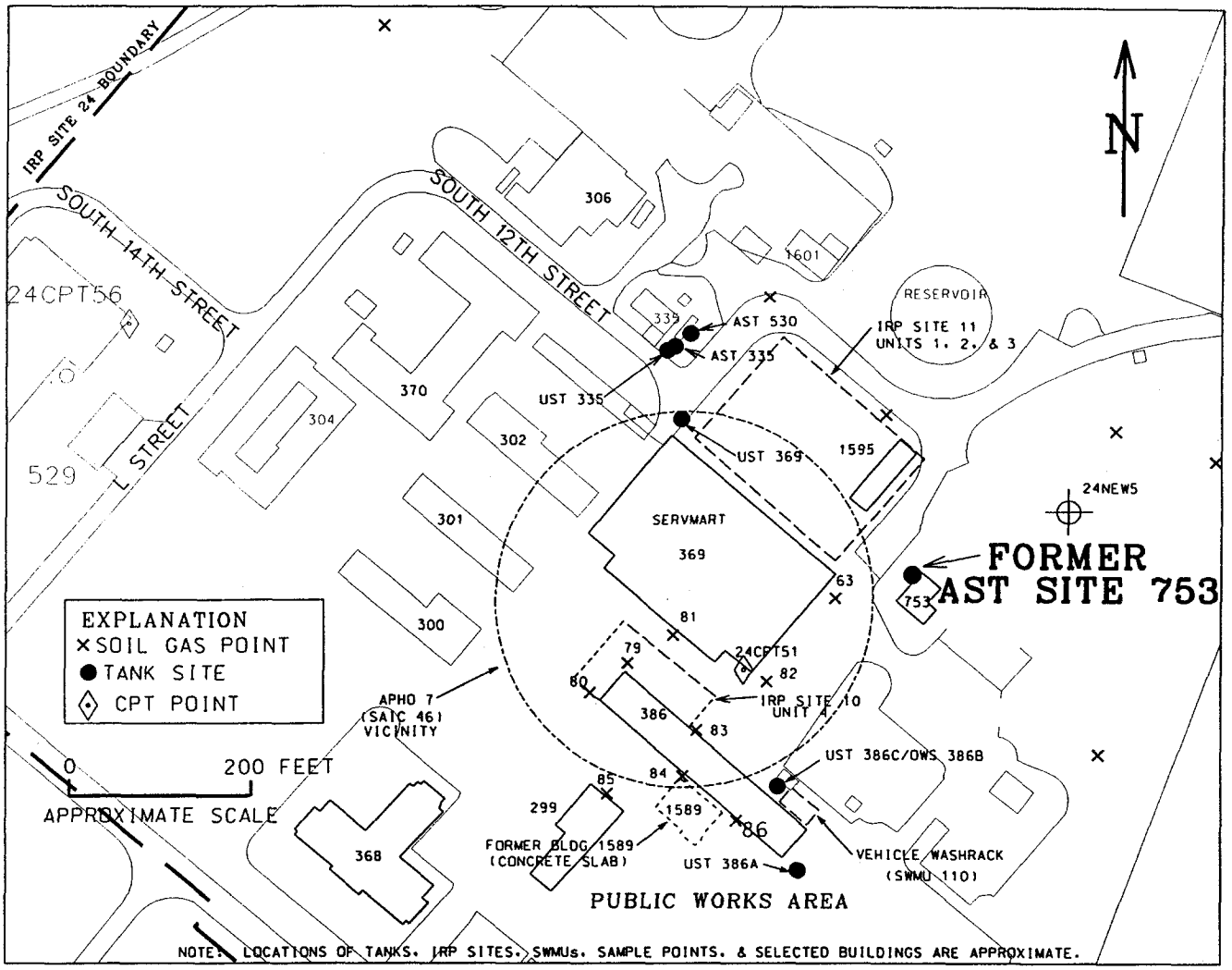
U.S. Marine Corps Air Station, El Toro. 1997. Draft Final Interim Record of Decision, Operable Units 2A, Site 24, Vadose Zone, Marine Corps Air Station, El Toro, California. September.

United States Marine Corps Air Station, El Toro. 1997. Building Guide.

United States Marine Corps Air Station, El Toro, Public Works Department. 1954. Master Plot Plan, Proposed Additional Aircraft Parking Facilities in Tactical Area III and Proposed Relocation of Existing Stables. [Alternate drawing identification number Public Works drawing PS-1236]

United States Marine Corps Air Station, El Toro. Circa 1946-1999. Station Property Records.

Figures



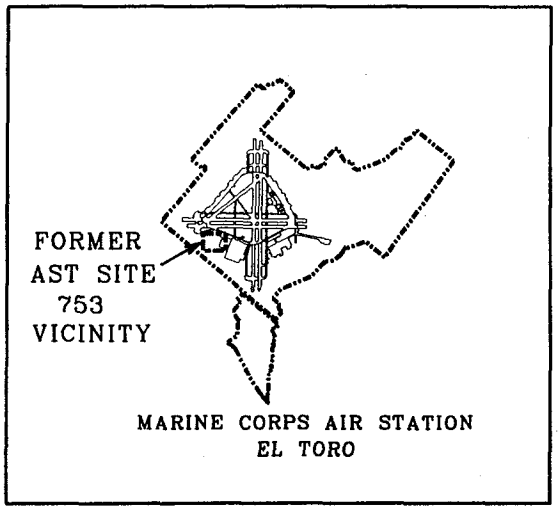


Figure 1.

FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

FORMER AST SITE 753 VICINITY MAP

MARINE CORPS AIR STATION, EL TORO

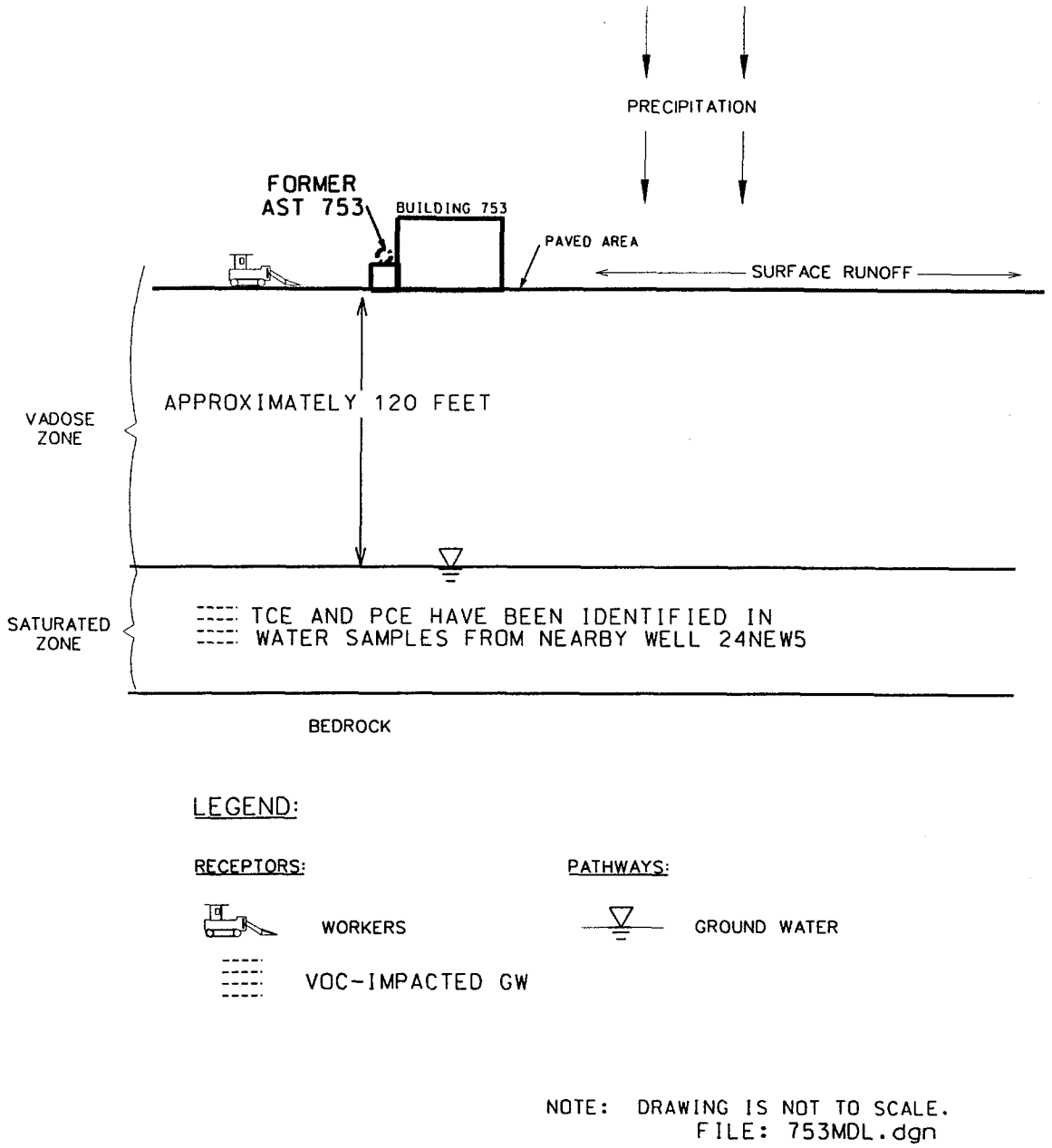


Figure 2.

FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

CONCEPTUAL SITE MODEL

MARINE CORPS AIR STATION, EL TORO

Appendix

Site Photographs and Other Documentation

Site Photographs

Check List Form

Disposal Documentation for AST 753

Exhibit

1997 Building Guide Extracts

Extracts from Base Realignment and Closure Cleanup Plan (BCP)

Extracts from EBS

Extracts from SWPPP

No Further Action Documents (Closure Letters and Record of Decision Extracts) for Nearby Environmental Locations of Concern and Selected Information from the Installation Restoration Program Documents

SITE PHOTOGRAPHS

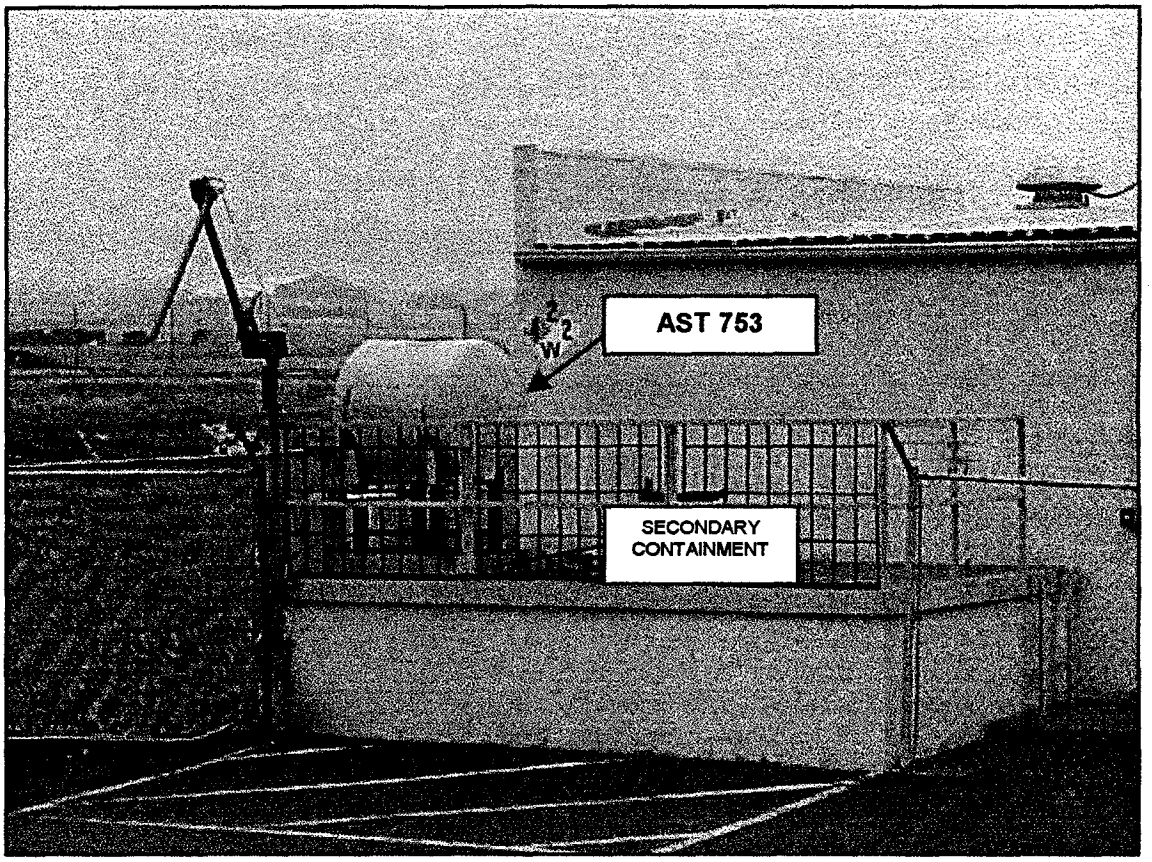
SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

SOUTHWESTNAVFACENGCOM
Code 5BME.LMH
(619) 532-4162/Fax (619) 532-4160

File: at753ph

Photograph 1.
ABOVE-GROUND STORAGE TANK (AST) 753 VICINITY
Marine Corps Air Station, El Toro
Date of Photograph: June 1999



CHECK LIST FORM

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

CHECK LIST

Former Above-Ground Storage Tank (AST) Site 753

Recommendation: ***No Further Action Status***

Tank Description (from source document(s) BRAC Cleanup Plan of 1999 with proposed correction for tank capacity):
AST 753: *A 300-gallon (yellow) tank formerly located on the northwest side of Building 753 (Pest Control Building) and used for storage of pesticides.*

Visual Inspection Date (s): 30 October 1999 and 1 December 1999.

Participant(s) (with affiliation(s)) in inspection(s): *Lynn Marie Hornecker (US Navy)*

Current Site Conditions: *AST 753 was located on a platform that adjoined the northwest side of Building 753. The AST was installed in a metal frame, and a metal drip pan was located immediately below the tank. The tank and drip pan were removed previously, and no other tanks were observed during the inspection. The outline of the metal drip pan was visible on the platform during the inspections. Asphalt-cement pavement is located along the northwest side of Building 753, adjacent to the tank platform, and the pavement appeared to be in good condition with few cracks. The pavement on the adjacent access road has deteriorated and has many surface cracks.*

No stains or discolored areas were visible on the platform where the AST was located, and no stains or discolored areas were visible on the pavement immediately adjacent to the platform.

Is there visual evidence of the former location of the AST? *Yes.*

Is there evidence of past releases? *No.*

Are there indications of potential or current releases? *No.*

Description of photograph(s): *Photographs show the vicinity of Former AST Site 753. [One photograph was taken of the tank prior to tank removal in June 1999 and an inspection was made at that time. The more recent inspections included a photograph of the area immediately beneath the former AST 753.]*

Date of preparation of check list: ***1 December 1999***

DISPOSAL DOCUMENTATION FOR AST 753

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

Chemical Waste Management, Inc.

GENERATOR'S WASTE PROFILE SHEET

EA 1642
Profile #

(Please carefully read the instructions before completing this form. Please print in ink or type)

Was this waste generated in a site clean up which qualifies for the reduced State B.O.E. tax? Yes ☐ No ☒ Sales #

Service Agreement on file? Yes ☐ No ☐ Classification: Class I ☐ Class II ☐ Daily Cover ☐ Non Haz. ☐

TSDF requested _____ Technology requested _____

☐ Check here if this is a Recertification ☒ Check here if a Certificate of Destruction or Disposal is required

GENERAL INFORMATION

1. GENERATOR NAME: MCAS El Toro Generator USEPA ID: CA6170023208
2. Generator Address: Caretaker Site Office P.O. Box 444, East Irvine, CA 92650 Billing Address: ☐ Same: IT Corporation 3347 Michelson Dr., Suite 200 Irvine, CA 92612
3. Technical Contact/Phone: Steve Chandler (IT Corp)(949) 660-7545
4. Alternate Contact/Phone: _____ Billing Contact/Phone: Bob Eidenmuller (949) 660-5318

PROPERTIES AND COMPOSITION

5. A. Process Generating Waste: general facility clean-up/waste disposal
   B. Is the waste from a CERCLA or state mandated cleanup? Yes ☐ No ☒ Location Name: _____
6. Waste Name: non-RCRA hazardous waste, solid (empty container)
7. A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes ☐ No ☒
   B. If D001, D002, D003, D004-D043 do any underlying hazardous constituents (UHC's) apply? Yes ☐ No ☒ (if yes, attach UHC form)
   C. Does this waste contain debris (List size and type in chemical composition)? Yes ☐ No ☒
   D. Identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U): n/a State Waste Codes: 181
8. Does this waste contain any Class I or Class II ozone depleting substances? ☐ Yes (List in chemical composition) ☒ No
9. Physical state @ 70°F: A. Solid ☒ Liquid ☐ Both ☐ Gas ☐ B. Single Layer ☐ Multilayer ☐ C. Free Liquid range _____ to 0 %
10. A. pH: Range _____ to n/a or Not applicable ☒ B. Strong Odor ☐: describe none C. Color yellow
11. Liquid Flash Point: < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ > 200°F ☐ N.A. ☒
12. CHEMICAL COMPOSITION: List ALL constituents (including halogenated organics and UHC's) present in any concentration and forward available analysis.

Constituents	Range	Units	Constituents	Range	Units
poly storage tank (no residues)	100	%			

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

13. OTHER PCB's: if yes, concentration (dry weight) 0 ppm, PCB's regulated by 40 CFR 761 ☐ Pyrophoric ☐ Explosive ☐ Radioactive ☐ Water Reactive ☐ Shock Sensitive ☐ Oxidizer ☐ Carcinogen ☐ Infectious ☐ Other _____
14. If Benzene, concentration 0 ppm. Is the waste subject to the Benzene Waste Operation NESHAP? Yes ☐ No ☐ Unknown ☐
15. Is the waste subject to RCRA subpart CC controls? Yes ☐ No ☒ Volatile organic concentration, if known _____ ppmw
16. If the waste is subject to the land ban and meets the treatment standards, check here: ____ and supply analytical results.

SHIPPING INFORMATION

17. PACKAGING: Bulk Solid ☒ Type/Size: AST 300 gal. Bulk Liquid ☐ Type/Size _____ Drum ☐ Type/Size _____ Other _____
18. SHIPPING FREQUENCY: Units 1 Per: ☐ Month ☐ Qtr. ☐ Year ☒ One Time ☐ Other _____

SAMPLING INFORMATION

19. A. Sample source (drum, lagoon, pond, tank, vat, etc.)
    Date Sampled: n/a Sampler's Name/Company: _____
    B. Generator's Agent Supervision Sampling _____ No sample required (See instructions)

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary.

Signature: _____ Printed (or typed) name and title: Scott Kohe Date: 19 Nov 99

If the waste profile is approved, Chemical Waste Management, Inc. has the appropriate permits and will accept the waste pursuant to our agreement. CWM Form 6000-DI replaces the following forms: CWM-51, CWM 6000, CWM 50-A-2, CWM 50-B, CWM 6000C AND CWM Form 6000-D.

DEC. 1. 1999 10:50AM NO. 1940 P. 3

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

96612686

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CA6170023208
Manifest Document No: 12686
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
MCAF El Toro
Caretaker Site Office, P.O. Box 444, East Irvine, CA 92650
Attn: Joseph Joyce
4. Generator's Phone: (714) 726-...

A. State Manifest Document Number: 96612686
B. State Generator's ID: HAHQ38038916

5. Transporter 1 Company Name: Ecology Control Industries, Inc.
6. US EPA ID Number: CAD982030173
C. State Transporter's ID:
D. Transporter's Phone: (510) 235-1393

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Chemical Waste Management, Inc
35251 Old Skyline Rd
Kettleman City, CA 93239
10. US EPA ID Number: CAT000646117
G. State Facility's ID:
H. Facility's Phone: (209) 386-9711

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Waste flammable liquids, n.o.s. (jet fuel and water) 3, UN1993, PGIII	001	~~DF~~ DM	00010	G	State 135; EPA/Other D001
b. Non-RCRA hazardous waste liquid	~~001~~ 008	DM	00440	G	State 135; EPA/Other n/r
c. Non-RCRA hazardous waste solid	001	~~DM~~ DF	00200	P	State 181, 512; EPA/Other n/r
d. Non-RCRA hazardous waste solid	001	TP	00100	P	State 181, 512; EPA/Other n/r

J. Additional Descriptions for Materials Listed Above
1a. Profile#EA1644
1b. Profile#EA1645 (soil and water contaminated with lead)
1c. Profile#EA1642 (cleaned and emptied AST previously contained pesticides)
1d. Profile#EA1642 (cleaned spill pan for AST)

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Caution: Wear appropriate protective clothing and respiratory protection when handling.
IN CASE OF EMERGENCY CONTACT: Chem-Tel, Inc. at 1-800-255-3924
Site pick up address:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Scott Kr...	[signature]	11	24	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Tauric Hernandez	[signature]	11	24	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (4/97)
EPA 8700-22

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

DEC. 1. 1999 10:50AM NO. 1940 P. 4

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-97)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
CA6170023208	12686		

3. Generator's Name and Mailing Address
MCAF El Toro
Caretaker Site Office, P.O. Box 444, East Irvine, CA 92650
Attn: Ronald Johnson

4. Generator's Phone (949) 672-1403

5. Transporter 1 Company Name: Ecology Control Industries, Inc. — 6. US EPA ID Number: CAD982030173

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address: Chemical Waste Management, Inc., 35251 Old Skyline Road, Kettleman City, CA 93239 — 10. US EPA ID Number: CAT000646117

[redacted]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Waste flammable liquids, n.o.s. (oil, fuel and water), 3, UN1993, PG II	001	DF	00010	G
b. Non-RCRA hazardous waste liquid	001	DM	00440	G
c. Non-RCRA hazardous waste solid	001	DM	00299	P
d. Non-RCRA hazardous waste solid	001	TP	00199	P

[redacted]

15. Special Handling Instructions and Additional Information
Caution: Wear appropriate protective clothing and respiratory protection when handling.
IN CASE OF EMERGENCY CONTACT: Chem-Tel Inc at 1-800-255-3924
Site pick up address:

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Stan Keit	[signature]	11	24	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ignacio Hernandez	[signature]	11	24	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

9661 2686

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DTSC 8022A (4/97)
EPA 8700—22

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

Generator Name: MCAS El Toro Manifest Doc. No.: 12686

CLM Profile Number: EA1644 State Manifest No: 96612686

1. Check ONE: This is a XX Nonwastewater _ Wastewater
2. If this waste is subject to any California List restrictions enter the letter from below (either A, B.1, or B.2) next to each restriction that is applicable:
___ HOCs, ___ PCBs, ___ Acid, ___ Metals, ___ Cyanides
3. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subdivision, or check NONE if the waste code has no subdivision. Also check which treatment standards apply. Spent solvent and California List treatment standards are listed on the following page. If F039, multi-source leachate applies, those standards must be attached by the generator. If the specified treatment technology of "Deactivation, and meet F039" is identified for D001 and D002, underlying hazardous constituent standard(s) must also be attached.

REF #	4. US EPA HAZARDOUS WASTE CODE(S)	5. SUBDIVISION ENTER THE SUBDIVISION DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE		6. APPLICABLE TREATMENT STANDARDS			7. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
				6.a - PERFORMANCE-BASED: CHECK AS APPLICABLE		6.b - SPECIFIED TECHNOLOGY: IF APPLICABLE ENTER THE 40 CFR 268.42 TABLE 1 TREATMENT CODE(S)	
		DESCRIPTION	NONE	268.41(a)	268.43(a)	268.42(a)	
1	D001		X			DEACT/CMBST	A
2							
3							
4							
5							

To identify F039 or D001, D002 underlying hazardous constituent standards, use the "F039/underlying hazardous constituent form" provided and check here
Additional USEPA waste code(s) and subdivision(s) are provided on the supplemental sheet (CLM-2001-B): N

HOW MUST THE WASTE BE MANAGED? In column 7 above, enter the letter (A, B1, B2, B3, C, D or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B2, B3, or D, you are making the appropriate certification as provided below.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, 268.32, or RCRA Section 3004(d).
___ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.2 RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS EXPRESSED AS A SPECIFIED TECHNOLOGY (AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY)
"I certify under penalty of the law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 40 CFR Part 264 Subpart O or Part 265 Subpart O, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, or a case-by-case extension. Enter the effective date of prohibition in column 7 above.
___ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I have determined that this waste meets all applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and all applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and therefore, can be land disposed without further treatment. A copy of all applicable treatment standards and specified treatment methods is maintained at the treatment, storage and disposal facility named above. "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth on 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false certifications, including the possibility of a fine and imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

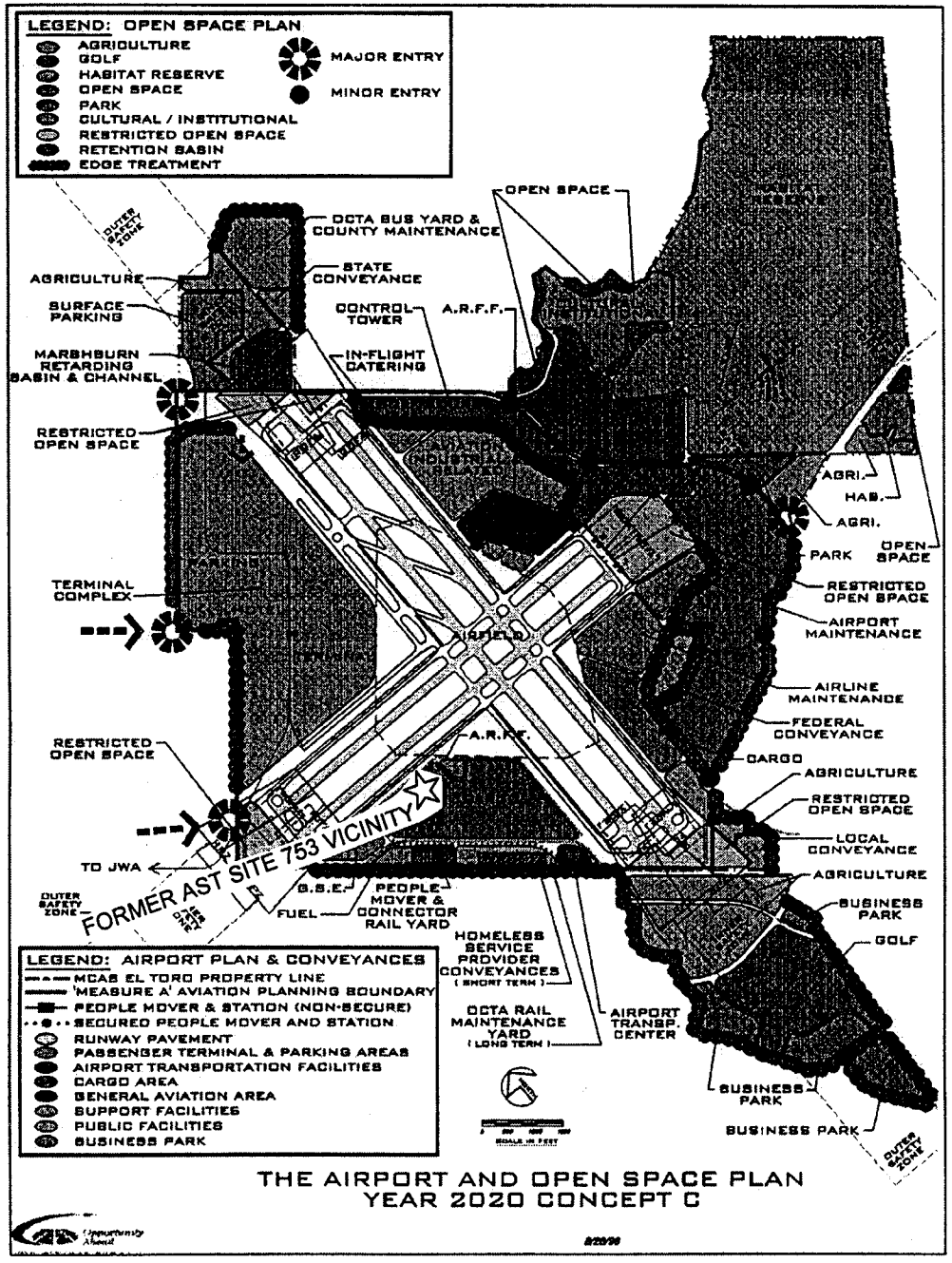
I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature _____ Title _____ Date _____

EXHIBIT

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999



THE AIRPORT AND OPEN SPACE PLAN
YEAR 2020 CONCEPT C

NOTE: ANNOTATIONS MADE BY THE WRITER OF THE SUMMARY REPORT ARE IDENTIFIED WITH AN ARROW OR A STAR SYMBOL.

Exhibit 1.

FORMER ABOVE-GROUND STORAGE TANK (AST) SITE 753

Tentative Reuse Plan

The Airport and Open Space Plan, Year 2020, Concept C (County of Orange, 1998)

MARINE CORPS AIR STATION, EL TORO

M60050.001405
MCAS EL TORO
SSIC # 5090.3

1997 BUILDING GUIDE EXTRACTS

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

El Toro Building Guide

EXTRACTS

BLDG	GRI	DESCRIPTION	TENANT	CATCO	SAC	SIZE
751	M10	Hazardous/Flam Storage	MALS-11	44130	EBDO	126 SF
752	N10	Fuel Farm #5 Office	Supply	61010	EBFO	348 SF
753	T7	Pest Control Bldg	Installation	44130	EBDO	1118 SF
755	R12	LOX/NOX Shelter	Supply	14187	EBNO	150 SF
756	R12	LOX/NOX Shelter	MALS-11	14187	EBNO	150 SF
757	M2	Telephone Office	Sta/G-6			1716 SF
758	U7	Vehicle Washrack Util Bldg	MWSG-37	89009	EAPO	228 SF
759	T7	Vehicle Washrack Util Bldg	CSSD-14	89009	EAPO	228 SF
760	U8	Vehicle Washrack Util Bldg	CSSD-14	89009	EAPO	228 SF
761	R11	ACFT Washrack Utility Bldg	MAG-11	89009	EAPO	684 SF
762	P13	Vehicle Washrack Util Bldg	MWSG-37	89009	EAPO	228 SF
763	N10	ACFT Washrack Utility Bldg	MAG-11	89009	EAPO	684 SF
764	M9	Vehicle Washrack Util Bldg	MALS-11	89009	EAPO	228 SF
765	S5	Vehicle Washrack Util Bldg	MWSS-371	89009	EAPO	228 SF
766	R5	Vehicle Washrack Util Bldg	Aero Club	89009	EAPO	228 SF
767	M7	Billboard	MAG-11	69010	ECLO	1 EA
769	T6	HW Collection Facility	Environment	83141	EAQO	204 SF
770	T7	HW Collection Facility	Environment	83141	EAQO	204 SF
771	S4	HW Collection Facility	MWSG-37	83141	EAQO	204 SF
772	P13	HW Collection Facility	Environment	83141	EAQO	204 SF
773	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
774	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
775	N2	Antenna-MARS	CEO	13210	ECCO	1 EA
776	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
777	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
778	U9	HW Collection Facility	Environment	83141	EAQO	204 SF
779	N10	HW Collection Facility	Environment	83141	EAQO	204 SF
780	G14	Ready Serv Magazine	EOD	42135	EBQO	128 SF
781	G15	Ready Serv Magazine	Sta Ordn	42135	EBQO	512 SF
782	Q13	Golf Course Maint Bldg	MWR/Rec	74080	EBLO	1320 SF
783	P2	Exchange Admin	MWR/Ret	74003	EBLO	10683
783	P2	MCX Service Outlets	MWR/Ret	74009	EBLO	11037
784	Q13	DRMO Field Office Lot #2	DRMO	61010	EBFO	400 SF
785	Q11	Aviation Maint Bldg	VMFAT-101	21106	EBVO	5600 SF
786	P12	Aviation Armament	MALS-11	21154	EBVO	3000 SF
787	P12	NBC Defense Training	MWHS-3	17110	EBAO	4000 SF
788	L2	Recreation Pavilion	MWR/Rec	74078	EBLO	1500 SF
789	U6	Sewage Monitoring Station	Installation	83229	EHFO	36 SF
790	S13	Golf Cart Bldg	MWR/Rec	74080	EBLO	3471 SF
791	T3	Officers Club	MWR/Hosp	74060	EBLO	22500
792	K7	Stables Barn	MWR/Rec	74079	EBLO	2880 SF
793	O3	Mc Donald's	MWR/Hosp	74004	EBLO	3754 SF
794	Q4	EOD Team Bldg	EOD	14320	EBPO	3600 SF
795	E14	EOD Range Bldg	EOD	14320	EBPO	340 SF
796	M10	Substation/Chiller Bldg	Installation	82610	EBPO	1518 SF
797	R5	AVGAS Fueling Station	DLA	12120	ECDO	800 GM

EXTRACTS FROM BASE REALIGNMENT AND CLOSURE CLEANUP PLAN (BCP)

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

United States Marine Corps

Base Realignment and Closure Cleanup Plan (BCP)

EXTRACTS

For
Marine Corps Air Station
El Toro, CA

March 1999

Table 3-1a
Site Summary
(Sheet 18 of 34)

Seq No.	Database Tracking	LRA Reuse Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment†	Regulatory Mechanism	NFA	Comments	ECP Area Type*
490	AST 390B	7	500 gallons - VT	Diesel (stored)		Active				See Table 3-8	2
491	AST 439	32	500 gallons - HT	Propane (stored)		Active				See Table 3-8	2
492	AST 464	7	500 gallons -HT	Propane (stored)		Active				See Table 3-8	
493	AST 610	40	300 gallons - HT (formerly AST "610B")	Diesel Fuel Oil (stored)		Active				See Table 3-8	2
494	AST 619	7	size unknown	Diesel (stored)		Active				See Table 3-8	2
495	AST 637	42	500 gallons	Propane (stored)		Removed			X	See Table 3-8; not plotted on BCP Figures	1
496	AST 651	32	1,000 gallons - HT	Propane (stored)		Active				See Table 3-8	2
497	AST 670	32	1,000 gallons	Liquid Propane Gas (stored)		Removed			X	See Table 3-8; not plotted on BCP figures	1
498	AST 717	29	500 gallons - HT	Diesel (stored)		Active				See Table 3-8	2
499	AST 753	29	200 gallons - yellow HT	Pesticides (stored)		Active				See Table 3-8	7
500	AST 797	23	1,000 gallons - HT (labeled Hazardous Waste)	Waste Oil (stored)		Inactive				See Table 3-8	2
501	AST 862	27	30,000 gallons - HT (per note "C," it is Hazardous Waste)	JP-5 (stored)		Inactive				See Table 3-8	2
502	AST 883	32	1,000 gallons - rectangular yellow tank (relocated from B626) (formerly AST 626)	Empty, formerly waste oil (stored)		Removed				See Table 3-8	1
503	TAA 2	32	< 90-day accumulation area - Hanger 2			Active				See Table 3-9	3
504	TAA 5A	32	< 90-day accumulation area- Bldg. 5			Inactive				See Tables 3-9 and 3-13; SWMU/AOC 25	1
505	TAA 5B	32	< 90-day accumulation area- Bldg 5			Active				See Tables 3-9 and 3-13; SWMU/AOC 26	6
506	TAA 7	32	< 90-day accumulation area- Bldg 7			Inactive				See Table 3-9	1
507	TAA 10	32	< 90-day accumulation area- Bldg 10			Active				See Tables 3-9 and 3-13; SWMU/AOC 27	1
508	TAA 19	32	< 90-day accumulation area- Bldg 19			Inactive				See Table 3-9	7
509	TAA 22	32	< 90-day accumulation area- Bldg 22			Active				See Table 3-9	3
510	TAA 29A	32	< 90-day accumulation area- Bldg 29			Inactive				See Tables 3-9 and 3-13; SWMU/AOC 30	3
511	TAA 29B	32	< 90-day accumulation area- Bldg 29			Inactive				See Tables 3-9 and 3-13; SWMU/AOC 31	3
512	TAA 31A	32	< 90-day accumulation area- Bldg 31			Active				See Tables 3-9 and 3-13; SWMU/AOC 272	1
513	TAA 31B	32	< 90-day accumulation area- Bldg 31			Inactive				See Table 3-9	3

Table 3-8
Aboveground Storage Tank Inventory
(Sheet 2 of 2)

Database Tracking	LRA Reuse Parcel	Location	Description (Size/Contents/Type)	Status	AST No.	Source	ECP Area Type
AST 753	29	Building 753 (NW side)	200 gallons - yellow HT	Active	753	A, F	7
AST 797	23	Building 797	1,000 gallons - HT (labeled Hazardous Waste)	Inactive	797	A, F	2
AST 862	27	Building 862 (adjacent to 789 & 496)	30,000 gallons - HT (per note "C," it is Hazardous Waste)	Inactive	862	A, C, F	2
AST 883	32	Building 883 (S side)	1,000 gallons - rectangular yellow tank (relocated from B626) (formerly AST 626)	Removed	883	F	1

Notes:
(A) Personal communications, R. Duffin/MCAS El Toro EO, February/March 1993. Contingency Plan, January 1994.
(B) SAIC, Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan, January 1994.
(C) MCAS El Toro Building Guide (July 8, 1995).
(D) EGG, MCAS El Toro Underground Storage Tank Survey Report, November 1990. This report identified these tanks as underground storage tanks, however the tanks were later identified as aboveground storage tanks by Station staff (source E).
(E) Personal communications, Lt. H. Katcharian/MCAS El Toro EO, December 1997.
(F) Ongoing field verification inventory study under CLEAN II (CTO-0075).

Abbreviations:
AST - aboveground storage tank
CTO - Contract Task Order
ECP - environmental condition of property
EO - Environmental Office
HT - horizontal tank
VT - vertical tank

EXTRACTS FROM EBS

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA
INSTALLATION RESTORATION PROGRAM
FINAL ENVIRONMENTAL
BASELINE SURVEY REPORT

01 April 1995

Revision 0

EXTRACTS

PREPARED BY:
Southwest Division, Naval Facilities
Engineering Command
1220 Pacific Highway
San Diego, California 92132-5190

THROUGH:
CONTRACT #N68711-89-D-9296
CTO #284
DOCUMENT CONTROL NO:
CLE-C01-01F284-S2-0004

WITH:
Jacobs Engineering Group Inc.
401 West A Street, Suite 1905
San Diego, California 92101

In association with:
International Technology Corporation
CH2M HILL

Table 3-5
Aboveground Storage Tank Inventory
MCAS El Toro EBS Report - April 1995

Database Tracking	Location	Size/Contents	Status	AST No.	Source	Area Type
AST 126	Bldg. 126	300 gal./10:10 Oil	Active	126	A	7
AST 155	Bldg. 155	200 gal./Lube Oil	Active	155	A	7
AST 245	Bldg. 245	1,000 gal./LPG	Active	245	B	7
AST 317	Bldg. 317 C1	5,000 gal./Diesel	Active	317 C1 (1)	A	7
AST 390A	Bldg. 390	500 gal./Unleaded	Active	390A	A	7
AST 390B	Bldg. 390	500 gal./Diesel	Active	390B	A	7
AST 626	Bldg.626	1,000 gal./Waste Oil	Inactive	626	A	7
AST 637	Bldg. 637	500 gal./Propane	Active	637	B	7
AST 651	Bldg. 651	1,000 gal./Propane	Active	651	B	7
AST 670	Bldg. 670	Unknown/LPG	Active	670	C	7
AST 717	Bldg. 717	500 gal./Diesel	Active	717	A	7
AST 753	Bldg. 753	200 gal./Pesticides	Active	753	A	7
AST 797	Bldg. 797	1,000 gal./Waste Oil	Active	797	A	7
AST 862	Bldg. 862	30,000 gal./JP-5	Active	862	A	7

Notes:

LPG = liquid propane gas

(1) AST 317 C1 is owned and operated by the Station's municipal waste management contractor.

Sources:
A = Personal communications, R. Duffin/MCAS El Toro EO, February/March 1993.
B = SAIC, Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan, January 1994.
C = MCAS El Toro Building Guide, 1993.

EXTRACTS FROM SWPPP

SUMMARY REPORT
FORMER ABOVE-GROUND STORAGE TANK (AST)
SITE 753

DATED 3 DECEMBER 1999

EXTRACTS

STORM WATER POLLUTION PREVENTION PLAN

(SWPPP)

NOTE: ANNOTATIONS MADE BY THE WRITER OF THE SUMMARY REPORT ARE IDENTIFIED WITH AN ARROW OR A STAR SYMBOL.

FOR

MARINE CORPS AIR STATION EL TORO

EL TORO, CALIFORNIA

CONTRACT NO. N68711-96-D-2059
DELIVERY ORDER NO. 0002

VOLUME 1

JULY, 1997

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

Recommended BMPs include regular inspection and maintenance of the oil/water separator and low-flow diversion pumps and removal of sediments.

Building 717 - Crash, Fire, Rescue Storage - Station/G-3

No industrial activities occur in this area, however, there is a small hazardous waste/hazardous materials storage shed near Building 717 that contains a small tank within a bermed floor. Paint lockers are also located outdoors in an uncovered, unfenced containment structure consisting of sand bag berms and heavy plastic sheeting. A spill kit and SPCCP are present. Potential pollutants included lacquer, engine oil, spray paint, hydraulic fluid, gear oil and cleaning fluid.

Existing BMPs include a SPCCP, a spill kit, and spill response training. Recommended BMPs include removing the sand bag containment installing a covered, concrete secondary containment structure with a sump for storage of the paint lockers.

→ **Building 753 - Pest Control Building - Installation**

No industrial activities were performed in this area. Potential pollutants included sodium hypochlorite, biodegradable insecticide, aerosol, lacquer and herbicides. A tank containing an unidentified liquid was contained within a metal drip pan was located on a shipping dock outside Building 753. Water, identified by a sign stating "Contaminated Water", was observed to be leaking from piping beside the dock, running downslope on the paved parking lot, and entering the subsurface through a significant crack in the paving.

Existing BMPs include dry sweeping the floor. No SPCCP was in place, but there was a spill cleanup kit and personnel have had spill cleanup training. BMP recommendations are to develop a SPCCP.

Building 758 - Vehicle Wash Rack Utility Building - MWSG-37

This facility is located inside the transportation yard and consists of a bus wash rack. The wash rack is bermed and drains to an oil/water separator (#758). A natural gas-fired water heater with a water pump is also located at the site. The oil/water separator was partially dismantled and undergoing repair, however, the wash rack was still being used. Significant waste wash rack water was also being splashed outside the berm where it could then be discharge to the nearest storm drain. Cleaning agents are stored in a shed adjacent to the wash rack with no secondary containment.

TABLE 6-1

MCAS EL TORO

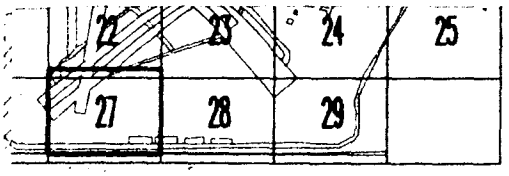
STATIONWIDE SUMMARY OF BMPs

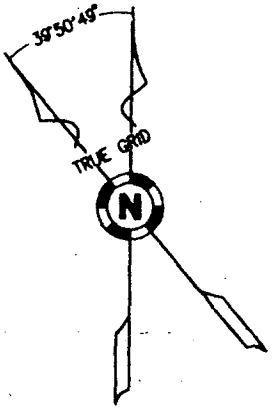
BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	BMP STATUS	BMP #	BMP Description
					Existing	065	Place Spill Kit in Area
747	08	Contract Refueler Facility	Supply	Previous			No Additional BMPs Recommended
748	08	Public Toilet/Van Complex	MWHS-3	Limited			No Additional BMPs Recommended
749	08	Public Toilet/Van Complex	MALS-11	Limited			No Additional BMPs Recommended
750	08	Sentry Booth/Van Complex	MALS-11	Limited			No Additional BMPs Recommended
751T	08	Hazardous/Flammable Storage Locker	MALS-11	Previous			No Additional BMPs Recommended
752	08	Fuel Farm #5 Office	Supply	Limited			No Additional BMPs Recommended
753	01	Pest Control Bldg	Installation	Concern	Rec	009	Personnel Training
					Rec	112	Prepare Appropriate Spill Prevention and Response Plans
					Existing	005	Provide Regular Sweeping of Floor/Lot
					Existing	065	Place Spill Kit in Area
757	14	MARS Facility	CEO	Limited			No Additional BMPs Recommended
758	01	Vehicle Washrack Utility Building	MWSG-37	Concern	Rec	012	Construct Berm or Dike Around Critical Areas
					Rec	110	Regularly Inspect and Maintain Storm Water Conveyance Systems

TABLE 7-1

MCAS EL TORO MATERIALS INVENTORY

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	TRADE/COMMON NAME	MAX. DAY	AVE. Day	CONT.
730	24	UST-Communications Center	Station/G-6	Concern	Diesel Fuel No. 2	1000 gal	500 gal	1000 gal
726 #13	37	HM Storage	VMFAT-101	Concern	Hydraulic fluid, fire resistant	78 gal	36 gal	1 gal
744	26	Armory Small Arms Shop	MWSS-373 CSSD-14	Concern	Cleaner	N/A	N/A	N/A
746	08	Flight Simulator	Training	Concern	Lubricating Oil	N/A	N/A	5 gal
753	01	Pest Control Bldg	Installation	Concern	N/A			
755		Tank	Station		Liquid Nitrogen	2000 gal	1000 gal	20000gal
758	01	Vehicle Washrack Utility Building	MWSG-37	Concern	N/A			
761	37	ACFT Washrack Utility Building	MAG-11	Concern	N/A			
762	10	Vehicle Washrack Utility Building	MWSG-37	Concern	N/A			
763	08	ACFT Washrack Utility Building	MAG-11	Concern	N/A			
764	08	Vehicle Washrack Utility Building	MALS-11	Previous	N/A			
765	22	Vehicle Washrack Utility Building	MWSS-371	Concern	N/A			





KEY PLAN

SCALE: NONE

"=150'-0"

150 0 150 300

SCALE FEET

THAN 22X34 IT IS A REDUCED PRINT SCALE ACCORDINGLY

IEM

ENVIRONMENTAL MANAGEMENT, INC.

TIN, CALIFORNIA 92680 (714) 731-5977 • (714) 731-5976

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

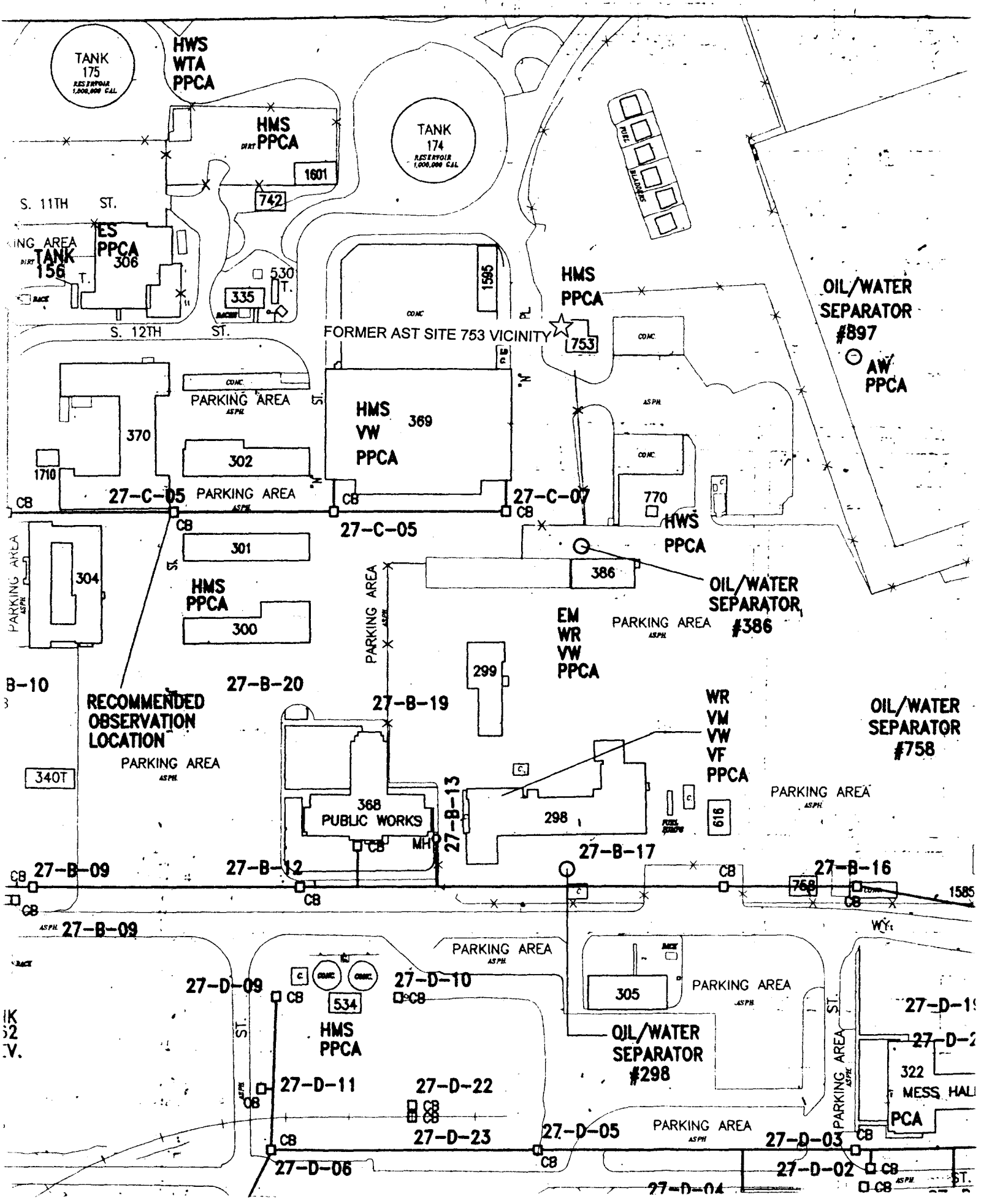
EL TORO SOUTHWEST DIVISION CALIFORNIA

MARINE CORPS AIR STATION EL TORO, CA.

"MCAS" EL TORO

AREA 27 – STORM DRAINS

SIZE	CODE IDENT. NO.	NAVFAC. DRAWING NO.	
D		CONT. CONTR. NO.	XXXXX
SCALE		SPEC.	SHEET OF


TANK 175
HWS WTA PPCA
HMS PPCA
1601
742
TANK 174
S. 11TH ST.
ES PPCA
306
TANK 156
530
335
S. 12TH ST.
FORMER AST SITE 753 VICINITY
753
1595
HMS PPCA
OIL/WATER SEPARATOR #897
AW PPCA
PARKING AREA
HMS VW PPCA
369
370
302
1710
27-C-05
27-C-07
770
HWS PPCA
386
OIL/WATER SEPARATOR #386
301
304
HMS PPCA
300
EM WR VW PPCA
299
27-B-10
27-B-20
27-B-19
RECOMMENDED OBSERVATION LOCATION
340T
WR VM VW VF PPCA
OIL/WATER SEPARATOR #758
368 PUBLIC WORKS
298
616
27-B-13
27-B-17
27-B-09
27-B-12
27-B-16
768
1585
27-D-09
27-D-10
534
HMS PPCA
305
OIL/WATER SEPARATOR #298
27-D-11
27-D-22
27-D-23
27-D-05
27-D-03
27-D-06
27-D-02
27-D-04
322
MESS HALL
PCA

No Further Action Documents (Closure Letters and Record of Decision Extracts) for Nearby Environmental Locations of Concern and Selected Information from the Installation Restoration Program Documents

Department of Toxic Substances Control

Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Winston H. Hickox
Secretary for
Environmental
Protection

Gray Davis
Governor

August 20, 1999

Mr. Dean Gould
BRAC Environmental Coordinator
U.S. Marine Corps Air Station - El Toro
P. O. Box 51718
Irvine, California 92619-1718

SUMMARY REPORT FOR AERIAL PHOTOGRAPH ANOMALY (APHO) 7, MARINE CORPS AIR STATION (MCAS) El TORO

Dear Mr. Gould:

The Department of Toxic Substances Control (DTSC) has reviewed the above report dated July 14, 1999 and the Addendum inspection checklist dated July 20, 1999. The Report presents the results of the record search activities and a visual inspection of the APHO 7 (Also known as Science Applications International Corporation (SAIC) 46). The anomaly is described as wet soil or stains in the vicinity of Building 386 and Building 369 within the boundary of IRP Site 24. APHO 7 was identified on an aerial photograph dated December 1946, and the surface area of the anomaly is approximately 300 feet in diameter.

The report recommends a no further action status for APHO 7 based on evaluation of historical aerial photographs, Station maps and plans, Station property records, environmental program management plans, the results of previous environmental restoration program investigations, and visual site inspections conducted in July 1999.

DTSC concurs with the proposed no further action status designation for the APHO 7. The no further action status can be documented in the next BRAC Cleanup Plan updated. If you have any questions, please contact me at (714) 484-5418.

Sincerely,

Tayseer Mahmoud
Remedial Project Manager
Southern California Operations
Office of Military Facilities

cc: See next page

cc: Mr. Glenn Kistner, SFD-8-2
Remedial Project Manager
U. S. Environmental Protection Agency
Region IX, Superfund Division
75 Hawthorne Street
San Francisco, California 94105-3901

Ms. Patricia Hannon
Remedial Project Manager
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Mr. Gregory F. Hurley
Restoration Advisory Board Co-chair
620 Newport Center Drive, Suite 450
Newport Beach, California 92660-8019

Ms. Polin Modanlou
MCAS El Toro Local Redevelopment Authority
10 Civic Center Plaza, 2nd Floor
Santa Ana, California 92703

Ms. Lynn Hornecker
Remedial Project Manager
Naval Facilities Engineering Command
Southwest Division - Code 5BME.LH
1220 Pacific Highway
San Diego, California 92132-5187

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

October 6, 1999

Mr. Dean Gould
BRAC Environmental Coordinator
MCAS El Toro
P. O. Box 51718
Irvine, CA 92619-1718

Re: Department of Navy (DoN) No Further Action Recommendations for Seventeen (17) Aerial Photograph Anomaly (APHO) Sites at MCAS El Toro, CA

Dear Mr. Gould:

The United States Environmental Protection Agency (EPA) has received your letter of September 10, 1999, with the 17 APHO sites referenced above. EPA concurs with the DoN and with the State of California Department of Toxic Substances Control that no further action is necessary at those sites. We appreciate the opportunity to participate in this evaluation process.

Sincerely,

Glenn Kistner
Remedial Project Manager
Federal Facilities Cleanup Branch

cc: Alice Gimeno, DTSC
Patricia Hannon, RWQCB
Gregory Hurley, RAB Co -Chair
Polin Modanlou, LRA
Lynn Hornecker, SWDIV

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Room 135
San Diego, California 92132-5187

Contract No. N68711-92-D-4670

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY

CLEAN II

EXTRACTS

NOTE: ANNOTATIONS MADE BY THE WRITER OF THE SUMMARY REPORT ARE IDENTIFIED WITH AN ARROW OR A STAR SYMBOL.

FINAL WORK PLAN
PHASE II
REMEDIAL INVESTIGATION/ FEASIBILITY STUDY
MCAS EL TORO, CALIFORNIA

CTO-0059

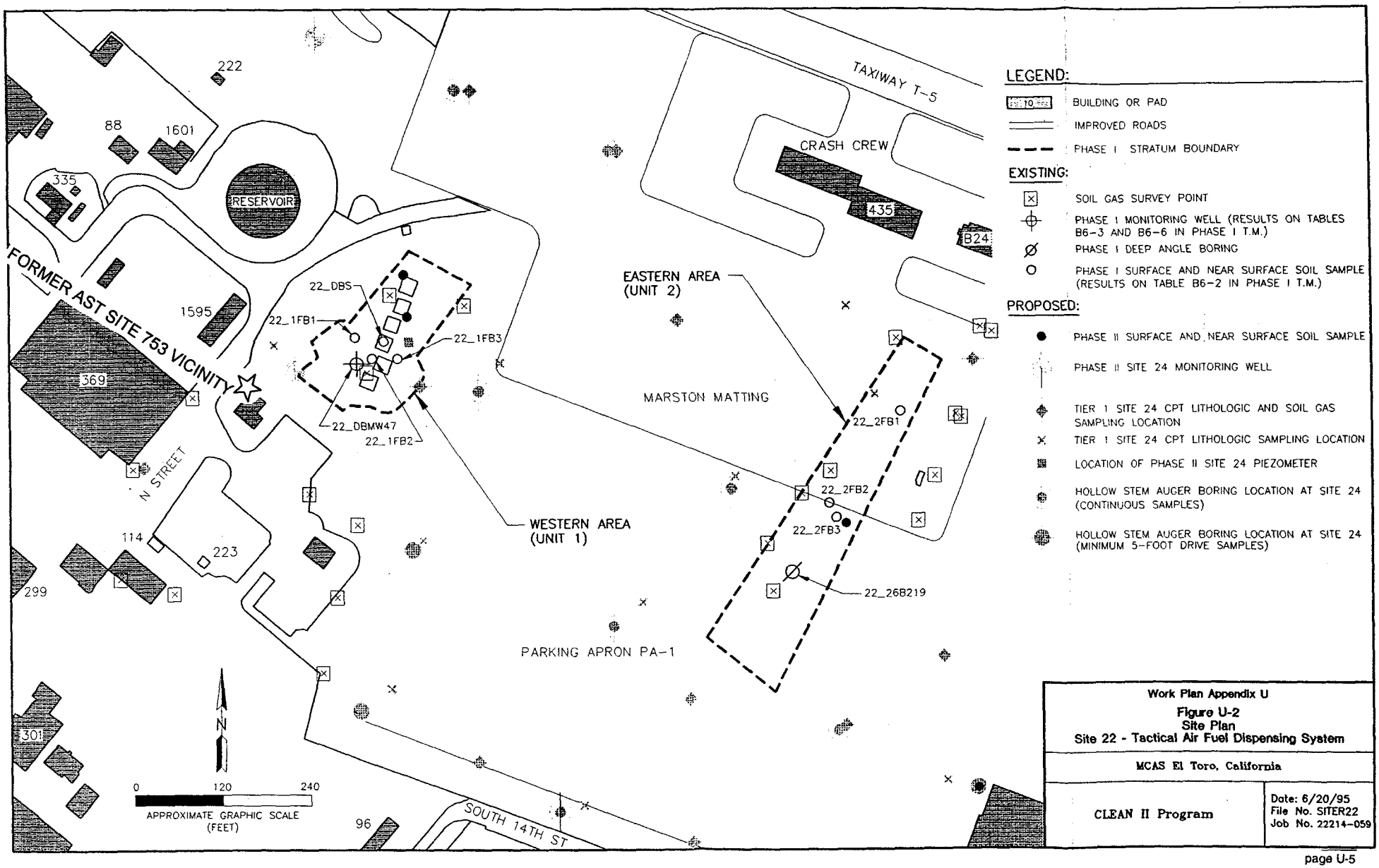
Prepared by:

BECHTEL NATIONAL, INC.
401 West A St., Suite 1000
San Diego, California 92101

July 1995

Signature: Timothy W. Latas
Timothy W. Latas, CTO Leader

Date: 7/28/95



Work Plan Appendix U

Figure U-2
Site Plan
Site 22 - Tactical Air Fuel Dispensing System

MCAS El Toro, California

CLEAN II Program

Date: 6/20/95
File No. SITER22
Job No. 22214-059

EXTRACTS

DRAFT FINAL
RECORD OF DECISION
OPERABLE UNITS 2A AND 3A
NO ACTION SITES
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SEPTEMBER 1997

DECLARATION

DECLARATION

SITE NAME AND LOCATION

Marine Corps Air Station (MCAS) El Toro
Operable Unit-3A, Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22
Operable Unit-2A, Site 25
Orange County, California

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25 at MCAS El Toro in Orange County, California. The document was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision is based on the administrative record file for these sites.

The State of California (through the California Environmental Protection Agency, Department of Toxic Substances Control, and Santa Ana Regional Water Quality Control Board) and the U.S. Environmental Protection Agency concur with the selected remedy.

DESCRIPTION OF THE SELECTED REMEDY: NO ACTION

The selected remedy for Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25 is no action. In selecting the no action remedy for these sites, the Navy has determined that the existing condition of the sites is protective of human health and the environment.

Although no deed restrictions are required because of chemicals present in soils at the no action sites, shallow groundwater underlying Sites 9, 10, 13, 15, 21, 22, and portions of Site 25 is contaminated by trichloroethene and tetrachloroethene. Remedial investigations have shown that the contamination does not originate from these sites but from Site 24, the volatile organic compound source area. Use restrictions for several sites (including Site 24 and the no action sites listed above) prohibiting drilling of wells and/or extraction of groundwater and allowing access for groundwater monitoring and maintenance of equipment associated with groundwater remediation will be addressed in the Proposed Plan(s) and Record(s) of Decision for Operable Unit-1 and -2A regarding groundwater.

DECLARATION STATEMENT

Based on extensive field investigations, laboratory analyses, and a thorough assessment of potential human-health risks at each location and of potential ecological risks at Site 25, the Navy has determined that no remedial action is necessary to assure the protection of human health and the environment at Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25. The Remedial Investigations of these sites show that contamination is limited to the shallow soil interval (Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22) and to sediment and

Date: 09/30/97

Declaration

surface water (Site 25). The human health and ecological risk assessments show that the chemicals present in these media do not present an unacceptable risk to human health or the environment. Therefore, no remedial action is required at these sites. Since hazardous substances are not present at concentrations above unacceptable levels, CERCLA Section 121 cleanup standards do not apply.

Signature: _____ Date: Sept 23, 1997

Mr. Joseph Joyce
Base Closure and Realignment Environmental Coordinator
Marine Corps Air Station El Toro

Signature: _____ Date: Sept. 26, 1997

Mr. John E. Scandiffe, Chief
Southern California Operations
Office of Military Facilities
Department of Toxic Substances Control

Signature: _____ Date: 9/29/97

Mr. Daniel D. Opalski, Chief
Federal Facilities Cleanup Branch
United States Environmental Protection Agency, Region IX

Signature: _____ Date: 9/30/97

Mr. Gerald J. Thiebeault
Executive Officer
Regional Water Quality Control Board, Santa Ana Region

surface water (Site 25). The human health and ecological risk assessments show that the chemicals present in these media do not present an unacceptable risk to human health or the environment. Therefore, no remedial action is required at these sites. Since hazardous substances are not present at concentrations above unacceptable levels, CERCLA Section 121 cleanup standards do not apply.

Signature: _____ Date:_____

Mr. Joseph Joyce
Base Closure and Realignment Environmental Coordinator
Marine Corps Air Station El Toro

Signature: _____ Date:_____

Mr. John E. Scandura, Chief
Southern California Operations
Office of Military Facilities
Department of Toxic Substances Control

Signature: _____ Date:_____

Mr. Daniel D. Opalski, Chief
Federal Facilities Cleanup Branch
United States Environmental Protection Agency, Region IX

Signature: _____ Date:_____

Mr. Gerald J. Thiebeault
Executive Officer
Regional Water Quality Control Board, Santa Ana Region

EXTRACTS

FINAL

GROUNDWATER MONITORING REPORT
OCTOBER 1997 SAMPLING ROUND

GROUNDWATER MONITORING PROGRAM
FOR
MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA

Contract No. N68711-96-D-2029
Delivery Order 005

Prepared for:

SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 Pacific Highway
San Diego, California 92132

Prepared by:

CDM FEDERAL PROGRAMS CORPORATION
3760 Convoy Street, Suite 210
San Diego, California 92111

March 1998

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING ELEVATION (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
22_DBMW47	WT	116 - 156	277.83	11-Jan-96	114.43	163.40	
			277.83	15-Feb-96	113.95	163.88	0.48
			277.83	28-Feb-96	114.01	163.82	-0.06
			277.83	27-Mar-96	113.66	164.17	0.35
			277.83	30-Oct-96	113.93	163.90	-0.27
			277.83	26-Nov-96	113.57	164.26	0.36
			277.83	26-Dec-96	113.58	164.25	-0.01
			277.83	23-Jan-97	113.08	164.75	0.50
			277.83	27-Feb-97	112.45	165.38	0.63
			277.83	27-Mar-97	112.70	165.13	-0.25
			277.83	26-Jun-97	113.30	164.53	-0.60
			277.83	11-Aug-97	113.36	164.47	-0.06
			277.83	24-Sep-97	113.05	164.78	0.31
			277.83	7-Nov-97	112.95	164.88	0.10
24NEW1	SH	225 - 245	281.10	31-Oct-96	123.51	157.59	
			281.10	26-Nov-96	118.78	162.32	4.73
			281.10	26-Dec-96	116.70	164.40	2.08
			281.10	23-Jan-97	115.26	165.84	1.44
			281.10	27-Feb-97	114.18	166.92	1.08
			281.10	27-Mar-97	120.28	160.82	-6.10
			281.10	26-Jun-97	122.25	158.85	-1.97
			281.10	12-Aug-97	122.44	158.66	-0.19
			281.10	24-Sep-97	122.35	158.75	0.09
			281.10	7-Nov-97	116.30	164.80	6.05
24NEW4	WT	108 - 148	281.80	26-Nov-96	109.75	172.05	
			281.80	26-Dec-96	109.50	172.30	0.25
			281.80	23-Jan-97	109.03	172.77	0.47
			281.80	26-Feb-97	108.86	172.94	0.17
			281.80	27-Mar-97	108.94	172.86	-0.08
			281.80	26-Jun-97	109.05	172.75	-0.11
			281.80	12-Aug-97	109.00	172.80	0.05
			281.80	24-Sep-97	108.72	173.08	0.28
			281.80	7-Nov-97	108.82	172.98	-0.10
24NEW5	SH	230 - 250	279.20	31-Oct-96	120.39	158.81	
			279.20	26-Nov-96	115.29	163.91	5.10
			279.20	26-Dec-96	112.34	166.86	2.95
			279.20	23-Jan-97	110.74	168.46	1.60
			279.20	27-Feb-97	109.62	169.58	1.12
			279.20	27-Mar-97	116.80	162.40	-7.18
			279.20	26-Jun-97	118.93	160.27	-2.13
			279.20	11-Aug-97	119.18	160.02	-0.25
			279.20	24-Sep-97	119.07	160.13	0.11
			279.20	7-Nov-97	112.12	167.08	6.95
24NEW6	SH	165 - 185	265.60	26-Nov-96	83.05	182.55	
			265.60	26-Dec-96	82.63	182.97	0.42
			265.60	23-Jan-97	82.02	183.58	0.61
			265.60	26-Feb-97	81.60	184.00	0.42
			265.60	27-Mar-97	82.43	183.17	-0.83
			265.60	26-Jun-97	83.14	182.46	-0.71
			265.60	11-Aug-97	83.33	182.27	-0.19
			265.60	25-Sep-97	83.10	182.50	0.23
			265.60	7-Nov-97	82.28	183.32	0.82

Table 4-1: SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS
MCAS El Toro Groundwater Monitoring Program

Station ID	Base Screen Depth (Ft BGS)	Sample Date	PRIMARY VOCs DETECTED AND REGULATORY STANDARDS – All Results in Micrograms per Liter (ug/L)												OTHER VOCs DETECTED	
			TCE	PCE	CCl_4	1,1-DCE	1,2-DCE (total)	Chloroform	Chloro-methane	Benzene	Toluene	Ethyl-benzene	Xylenes (total)	Freon-113	Compound	Concent
			5.0	5.0	0.5	6.0		100.0		1.0	100.0	680.0	1750.0			
21_UGMW37	130	13-Nov-92	11.0	7.0	1.0 U	1.0 U	1.0 U	1.0	4.0	1.0 U	1.0 U	1.0 U	1.0 U			
		7-Jul-93	11.0	4.0	1.0 U	1.0 U	1.0 U	0.8 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		12-Feb-96	12.0	4.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	12.0	1.0 U	1.0 U	10.0 U		
		11-Nov-96	25.0	13.0	1.0 U	1.0 U	2.0	1.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	METHYLENE CHLORIDE	1.0
		25-Mar-97	25.0	11.0	1.0 U	1.0 U	2.0	1.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		9-Jul-97	19.0	11.0	1.0 U	1.0 U	1.0	1.0 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		9-Jul-97	18.0	10.0	1.0 U	1.0 U	0.8 J	1.0 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		27-Oct-97	21.0	9.0	1.0 U	0.5 J	1.0	1.0 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	METHYLENE CHLORIDE	0.7 JB
22_DBMW47	156	29-Sep-92	1000.0 E	7.0	5.0	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		13-Jul-93	1200.0 D	4.0	5.0	2.0	1.0 U	2.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
		15-Feb-96	467.0	2.0	3.0	1.0	1.0 U	2.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		2-Dec-96	990.0	5.0	3.0	3.0	1.0 U	2.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	15.0		
		24-Mar-97	733.0	3.0	3.0	3.0	1.0 U	2.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.0 J		
		8-Jul-97	760.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U		
		8-Jul-97	730.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U		
		23-Oct-97	540.0 E	3.0	3.0	3.0	1.0 U	2.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 J		
		23-Oct-97	770.0 D	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	250.0 U	25.0 U	25.0 U	25.0 U	25.0 U	250.0 U		
24NEW1	245	30-Oct-95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	10.0 U	0.4 J	0.8 J	1.0 U	0.3 J	10.0 U	ACETONE	5.0
															BROMODICHLOROMETHANE	2.0
															BROMOFORM	0.5 J
															DIBROMOCHLOROMETHANE	2.0
		2-Nov-95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 J	10.0 U	1.0 U	2.0	0.6 J	3.0	10.0 U	DIBROMOCHLOROMETHANE	0.4 J
		2-Dec-96	102.0	2.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		24-Mar-97	155.0	0.8 J	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		10-Jul-97	290.0	1.0	1.0 U	1.0 U	1.0 U	0.8 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 J		
		23-Oct-97	170.0 E	0.9 J	1.0 U	1.0 U	1.0 U	0.5 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.8 J	METHYLENE CHLORIDE	6.0
		23-Oct-97	170.0 D	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U		
24NEW4	148	26-Oct-95	1000.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		2-Nov-95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		3-Dec-96	1110.0	2.0	2.0	1.0	1.0 U	1.0	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.3 J		
		21-Mar-97	677.0	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	200.0 U	20.0 U	20.0 U	20.0 U	20.0 U	200.0 U	METHYLENE CHLORIDE	30.0
		8-Jul-97	640.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U		
		8-Jul-97	650.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U		
		23-Oct-97	390.0 E	0.5 J	1.0	0.5 J	1.0 U	0.8 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 J		
		23-Oct-97	580.0 D	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	250.0 U	25.0 U	25.0 U	25.0 U	25.0 U	250.0 U		
		23-Oct-97	420.0 E	0.6 J	1.0	0.6 J	1.0 U	0.9 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 J		
		23-Oct-97	620.0 D	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	250.0 U	25.0 U	25.0 U	25.0 U	25.0 U	250.0 U		
24NEW5	250	21-Nov-95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	ACETONE	4.0 J
															BROMODICHLOROMETHANE	2.0
															BROMOFORM	3.0
															DIBROMOCHLOROMETHANE	2.0
		2-Dec-96	0.7 J	2.0	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		24-Mar-97	7.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		8-Jul-97	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		
		20-Oct-97	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0 U		

Table 5-1: SUMMARY OF SEMIVOLATILE ORGANIC COMPOUND ANALYSES
MCAS El Toro Groundwater Monitoring Program

Station ID	Base Screen Depth (Ft BGS)	Sample Date	ANALYSIS SUMMARY		TCL SEMIVOLATILE COMPOUNDS DETECTED			REGULATORY	
			Number Compounds Analyzed	Number Compounds Detected	Compound Detected	Concent. ug/L	Qual. Flag	Standard ug/L	Code
22_DBMW47	156	29-Sep-92	64	0					
		13-Jul-93	64	0					
		15-Feb-96	64	0					
		24-Mar-97	64						
24NEW1	245	30-Oct-95	64	0					
24NEW4	148	2-Nov-95	64	0					
24NEW5	250	26-Oct-95	64	0					
24NEW6	185	26-Oct-95	64	0					
24NEW7	158	31-Oct-95	64	0					
24NEW8	162	1-Nov-95	64	0					

EXPLANATION:

1) The 1996 and 1997 sample results listed in this table are as reported in the APCL laboratory analytical reports (Appendix E of the Groundwater Monitoring Reports).

2) Regulatory Standard Codes: 1 = Federal MCL, 2 = State MCL, 3 = State Action Level
TCL = target compound list, MCL = maximum contaminant level
J = estimated value, B = present in blank

3) = Result exceeds regulatory standard

Table 6-1: SUMMARY OF PESTICIDES AND PCB ANALYSES
MCAS El Toro Groundwater Monitoring Program

Station ID	Base Screen Depth (Ft BGS)	Sample Date	ANALYSIS SUMMARY		TCL PESTICIDE COMPOUNDS DETECTED			REGULATORY	
			Number Compounds Analyzed	Number Compounds Detected	Compound Detected	Concent. ug/L	Qual. Flag	Standard ug/L	Code
18_RW3	390	4-Jun-93	28	0					
18_RW4	85	7-Jun-93	28	0					
19_DBMW54	181	18-Dec-92	28	0					
		22-Jun-93	28	0					
19_DGMW85	183	16-Dec-92	28	0					
		16-Dec-92	28	0					
		10-Jun-93	28	0					
19_DGMW86	198	17-Dec-92	28	0					
		11-Jun-93	28	0					
19_UGMW35	185	8-Dec-92	28	0					
		15-Jul-93	28	0					
20_DBMW55	227	9-Dec-92	28	0					
		17-Jun-93	28	0					
20_DGMW88	225	4-Nov-92	28	0					
		17-Jun-93	28	0					
20_UGMW36	223	28-Oct-92	28	0					
		18-Jun-93	28	0					
21_DBMW56	132	18-Nov-92	28	0					
		18-Nov-92	28	0					
		24-Jun-93	28	0					
21_DGMW90	135	18-Dec-92	28	0					
		10-Jun-93	28	0					
21_UGMW37	130	13-Nov-92	28	0					
		7-Jul-93	28	0					
22_DBMW47	156	29-Sep-92	28	0					
		13-Jul-93	28	0					

EXPLANATION

1) The 1996 and 1997 sample results listed in this table are as reported in the APCL laboratory analytical reports (Appendix E, Groundwater Monitoring Reports).

2) Regulatory Standard Codes: 1 = Federal MCL, 2 = State MCL, 3 = State Action Level, NA = not applicable or established
TCL = target compound list, MCL = maximum contaminant level
J = estimated value

3) = result exceeds regulatory standard

Table 6-1: SUMMARY OF PESTICIDES AND PCB ANALYSES
MCAS El Toro Groundwater Monitoring Program

Station ID	Base Screen Depth (Ft BGS)	Sample Date	ANALYSIS SUMMARY		TCL PESTICIDE COMPOUNDS DETECTED			REGULATORY	
			Number Compounds Analyzed	Number Compounds Detected	Compound Detected	Concent. ug/L	Qual. Flag	Standard ug/L	Code
07_DBMW100	171	8-Dec-92	28	0					
		8-Dec-92	28	0					
		4-Jun-93	28	0					
07_DGMW71	155	15-Dec-92	28	0					
		22-Jun-93	28	0					
07_DGMW72	150	19-Nov-92	28	0					
		21-Jul-93	28	0					
		15-Oct-93	28	0					
07_DGMW91	150	18-Dec-92	28	0					
		21-Jul-93	28	0					
08_DGMW73	130	2-Dec-92	28	0					
		20-Jul-93	28	0					
		20-Jul-93	28	0					
		14-Feb-96	28	0					
		20-Mar-97	28	1	ENDOSULFAN SULFATE	0.300			NA
08_DGMW74	130	16-Nov-92	28	0					
		16-Nov-92	28	0					
		16-Nov-92	28	0					
		16-Nov-92	28	0					
		20-Jul-93	28	0					
		14-Feb-96	28	0					
		19-Mar-97	28	1	ENDOSULFAN SULFATE	0.400			NA
		19-Mar-97	28	1	ENDOSULFAN SULFATE	0.400			NA
08_UGMW29	135	8-Dec-92	28	0					
		9-Jul-93	28	0					
		9-Jul-93	28	0					
		14-Feb-96	28	0					
		25-Nov-96	28	0					
		12-Mar-97	28	1	ENDOSULFAN SULFATE	0.600			NA
09_DBMW45	157	10-Dec-92	28	0					
		10-Dec-92	28	0					
		13-Jul-93	28	0					
09_DGMW75	154	1-Dec-92	28	0					
		12-Jul-93	28	0					
10_DGMW77	170	17-Nov-92	28	0					
		13-Aug-93	28	0					
12_DBMW48	135	17-Nov-92	28	0					
		27-Jul-93	28	0					
12_UGMW31	145	8-Oct-92	28	0					
		7-Jul-93	28	0					
13_DBMW49	182	16-Nov-92	28	0					
		30-Jun-93	28	0					
		30-Jun-93	28	0					

Table 7-1: SUMMARY OF METALS ANALYSES
MCAS El Toro Groundwater Monitoring Program

TARGET ANALYTE LIST METALS AND REGULATORY STANDARDS --- All Results in Micrograms per Liter (ug/L)																				
Station ID	Base Screen Depth (Ft BGS)	Sample Date - Type		Aluminum 50.0	Antimony 6.0	Arsenic 50.0	Banum 1000.0	Calcium	Chromium 50.0	Copper 1000.0	Iron 300.0	Lead 15.0	Magnesium	Manganese 50.0	Nickel 100.0	Potassium	Selenium 50.0	Silver 50.0	Sodium	Vanadium	Zinc 5000.0
21_UGMW37	130	13-Nov-92	F	48.1 B	12.1 U	0.7 U	25.3 B	144,000	3.7 U	0.9 U	8.5 B	0.6 U	39,400	13.7 B	102.0	2,550 B	9.5 SN	2.1 U	83,100	13.6 B	5.1 B
		7-Jul-93	F	15.7 B	24.1 B	0.7 B	33.8 B	153,000	2.9 U	0.8 B	23.0 B	0.4 U	39,600	5.5 B	194.0	2,180 B	11.4 BN	1.2 U	91,900	16.6 B	1.9 B
		12-Feb-96	F	200.0 U	60.0 U	10.0 U	200.0 U	169,000	10.0 U	25.0 U	100.0 U	3.0 U	49,000	15.0 U	490.0	2,880 J	10.0	10.0 U	105,000	50 U	20.0 U
		12-Feb-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	165,000	22.0	25.0 U	250.0	3.0 U	48,000	15.0 U	460.0	2,840 J	9.0	10.0 U	103,000	50 U	20.0 U
		25-Mar-97	F	200.0 U	60.0 U	10.0 U	34.8 B	138,000	6.7 B	5.1 B	74.4 B	1.7 B	35,700	10.6 B	405.0	2,170 B	12.3	10.0 U	84,600	10.6 B	7.6 B
22_DBMW47	156	29-Sep-92	F	31.0 U	16.6 B	1.7 B	32.2 B	187,000	3.7 U	0.9 U	2.3 U	0.6 U	50,500	5.4 B	7.7 U	2,460 B	28.9 S	2.1 U	82,800	17.2 B	2.2 U
		13-Jul-93	F	16.0 B	17.8 B	2.0 B	29.7 B	176,000	2.9 U	0.8 B	8.8 B	0.4 U	49,200	2.9 B	21.8 B	2,560 B	23.0 BN	1.2 U	83,300	15.9 B	1.2 B
		15-Feb-96	F	200.0 U	60.0 U	10.0 U	200.0 U	191,000	10.0 U	25.0 U	100.0 U	3.0 U	59,000	15.0 U	40.0 U	3,890 J	13.0	10.0 U	103,000	50 U	20.0 U
		15-Feb-96	UF	200.0 U	60.0 U	10.0 U	200.0 U	165,000	12.0	25.0 U	114.0	3.0 U	48,000	15.0 U	40.0 U	3,000 J	11.0	10.0 U	78,000	50 U	20.0 U
		24-Mar-97	F	200.0 U	60.0 U	10.0 U	36.9 B	165,000	4.9 B	3.8 B	100.0 U	5.0 U	44,500	1.3 B	14.4 B	3,070 B	15.2	10.0 U	80,000	14.8 B	4.3 B
24NEW1	245	30-Oct-95	F	120000	6.4 B	26.7	659.0	182,000	166.0	85.2	132000 J	18.5	84,500	1430.0 J	154.0	34,900	20.8	0.8 U	98,500 J	390.0	553.0
		2-Nov-95	F	20.0 U	2.2 U	2.3 B	30.1 B	105,000	3.7 B	5.8 B	26.6 B	1.5 U	30,000	41.5	2.4 B	3,330 B	18.7	0.8 U	95,100	16.9 B	5.1 U
		2-Dec-96	F	14.2 B	60.0 U	2.1 B	42.5 B	120,000	4.3 B	25.0 U	37.0 B	1.6 B	32,100	20.1	253.0	3,140 B	11.7	10.0 U	88,600	16.6 B	6.4 B
		24-Mar-97	F	200.0 U	60.0 U	10.0 U	37.5 B	119,000	4.1 B	7.5 B	21.6 B	5.0 U	32,300	7.6 B	373.0	3,710 B	20.3	10.0 U	86,600	13.5 B	11.2 B
24NEW4	148	26-Oct-95	F	11.8 B	8.1 B	2.1 U	37.5 B	129,000	5.1 B	5.5 B	51.0 J	1.5 U	35,700	23.7 J	88.4	3,060 B	10.7	0.8 U	93,200 J	11.4 B	3.8 B
		2-Dec-96	F	25.3 B	60.0 U	10.0 U	49.7 B	130,000	7.5 B	25.0 U	63.8 B	1.7 B	35,100	14.3 B	65.1	2,920 B	6.2	10.0 U	87,300	13.6 B	20.0 U
		21-Mar-97	F	54.3 B	60.0 U	10.0 U	47.0 B	130,000	12.7	2.4 B	142.0	5.0 U	33,400	23.0	105.0	3,050 B	11.1	10.0 U	80,900	12.4 B	9.3 B
		20-Nov-97	F	11.9 B	1.1 U	1.0 U	51.6 B	135,000	8.8 B	5.5 B	46.7 B	0.7 U	37,200	5.7 B	38.7 B	3,040 B	13.8	0.4 B	91,600	14.8 B	11.0 B
24NEW5	250	21-Nov-95	F	44.2 B	2.2 U	2.1 U	25.5 B	97,800	3.5 B	5.0 B	28.6 J	1.5 U	28,400	21.2	4.2 B	3,160 B	15.2	0.8 U	91,500 J	17.1 B	6.6 B
		2-Dec-96	F	21.7 B	60.0 U	2.7 B	36.1 B	96,000	3.4 B	25.0 U	100.0 U	1.1 B	26,400	8.3 B	114.0	3,310 B	6.5	10.0 U	80,400	17.8 B	3.7 B
		24-Mar-97	F	200.0 U	60.0 U	10.0 U	34.6 B	102,000	3.4 B	2.4 B	100.0 U	5.0 U	28,200	4.3 B	110.0	4,090 B	17.0	10.0 U	81,100	17.9 B	2.7 B
24NEW6	185	25-Oct-95	F	9.9 U	2.2 U	2.1 U	54.5 B	84,200	17.6	2.7 B	21.9 J	1.5 U	24,500	38.3 J	16.1 B	3,240 B	5.3	0.8 U	84,700 J	23.7 B	14.3 B
		2-Dec-96	F	34.5 B	60.0 U	2.4 B	55.7 B	85,600	14.1	25.0 U	100.0 U	1.7 B	25,000	6.8 B	81.6	3,070 B	5.0 U	10.0 U	82,500	21.2 B	6.8 B
		19-Mar-97	F	200.0 U	60.0 U	10.0 U	51.8 B	91,300	14.0	4.1 B	11.8 B	5.0 U	25,000	6.8 B	224.0	3,550 B	7.7	10.0 U	78,300	18.5 B	6.4 B
24NEW7	158	31-Oct-95	F	20.7 U	2.2 U	2.5 B	19.4 B	204,000	4.5 B	5.7 B	250.0	1.5 U	58,900	112.0	173.0	3,010 B	47.9	0.8 U	116,000	10.1 B	5.0 U
		2-Dec-96	F	13.1 B	60.0 U	10.0 U	26.4 B	221,000	9.3 B	25.0 U	382.0	1.9 B	63,400	70.8	290.0	2,820 B	40.6	10.0 U	130,000	10.3 B	5.5 B
		12-Mar-97	F	200.0 U	60.0 U	10.0 U	24.6 B	225,000	8.7 B	6.2 B	211.0	5.0 U	63,100	42.8	260.0	3,030 B	49.1	10.0 U	125,000	9.6 B	12.0 B

Table 8-1: SUMMARY OF GENERAL CHEMISTRY ANALYSES
MCAS El Toro Groundwater Monitoring Program

			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS All Results in Milligrams per Liter (mg/L)						
Station ID	Base Screen Depth (Ft BGS)	Sample Date	TDS 500	Chloride 250.0	Sulfate 250.0	Nitrate/ Nitrite-N 10.0	Alkalinity (as $CaCO_3$)	Bicarbonate (as $CaCO_3$)	Carbonate (as $CaCO_3$)
22_DBMW47	156	29-Sep-92	1,130	228.0	263.0	18.7	190	190	
		13-Jul-93	1,160	225.0	227.0	17.3	180	180	
		15-Feb-96	1,180	231.0	169.0	17.0	191	233	2 U
		2-Dec-96	1,010	219.0	160.0	16.5	192	192	2 U
		24-Mar-97	987	220.0	157.0	16.4	187	187	2 U
		8-Jul-97	1,070	250.0	156.0	15.3	192	192	2 U
		8-Jul-97	1,060	242.0	146.0	14.7	201	201	2 U
		23-Oct-97	1,070	236.0	157.0	12.2	189	189	2 U
24NEW1	245	30-Oct-95	807			3.7	180	180	
		2-Dec-96	865	150.0	186.0	9.2	170	170	2 U
		24-Mar-97	869	147.0	173.0	9.6	170	170	2 U
		10-Jul-97	1,010	189.0	206.0	10.0 U	174	174	2 U
		23-Oct-97	879	170.0	180.0	8.3	164	164	2 U
24NEW4	148	26-Oct-95				13.2	192	192	
		3-Dec-96	939	252.0	179.0	13.5	170	170	2 U
		21-Mar-97	857	210.0	97.2	12.1	197	197	2 U
		8-Jul-97	954	248.0	100.0	11.7	194	194	2 U
		8-Jul-97	869	254.0	102.0	12.0	196	196	2 U
		23-Oct-97	961	240.0	103.0	10.2	191	191	2 U
		23-Oct-97	1,070	242.0	103.0	10.0	189	189	2 U
24NEW5	250	21-Nov-95				5.6	172	172	
		2-Dec-96	745	148.0	128.0	7.1	168	168	2 U
		24-Mar-97	699	138.0	124.0	7.4	163	163	2 U
		8-Jul-97	689	148.0	123.0	6.7	170	170	2 U
		20-Oct-97	744	142.0	123.0	6.0	166	166	2 U
24NEW6	185	25-Oct-95				13.6	172	172	
		2-Dec-96	673	120.0	95.8	13.6	168	168	2 U
		19-Mar-97	647	148.0	81.7	12.8	172	172	2 U
		10-Jul-97	677	140.0	131.0	12.2	177	177	2 U
		27-Oct-97	720	130.0	98.8	9.7	171	171	2 U
24NEW7	158	31-Oct-95				19.7	188	188	
		3-Dec-96	1,590	300.0	510.0	22.0	179	179	2 U
		19-Mar-97	1,590	271.0	445.0	18.0	178	178	2 U
		2-Jul-97	1,540	316.0	533.0	20.3	185	185	2 U
		2-Jul-97	1,530	327.0	555.0	22.6	183	183	2 U
		20-Oct-97	1,590	301.0	464.0	16.6	181	181	2 U
24NEW8	162	1-Nov-95	1,260			21.1	176	176	
		3-Dec-96	1,160	278.0	290.0	16.5	164	164	2 U
		19-Mar-97	1,140	243.0	242.0	16.9	157	157	2 U
		2-Jul-97	1,160	320.0	320.0	19.7	159	159	2 U
		20-Oct-97	1,220	293.0	282.0	13.9	154	154	2 U

EXPLANATION

1) The 1996 and 1997 sample results listed in this table are as reported in the APCL laboratory analytical reports, (Appendix E, Groundwater Monitoring Reports).
2) Regulatory Standards for Parameters listed:
   Nitrate/Nitrite-N - 10 mg/L Federal maximum contaminant level (MCL)
   TDS (Total Dissolved Solids) - 500 mg/L Federal Secondary MCL
   Chloride - 250 mg/L Federal Secondary MCL
   Sulfate - 250 mg/L Federal Secondary MCL
3) = Result exceeds regulatory standard
4) Qualifying Flags: U = Concentration is below instrument detection limit (not detected)